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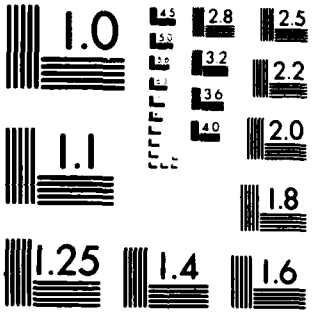

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VISUAL SYSTEM - VISUAL FIELD - PERCEPTION - MODULATION FREQUENCIES

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

During the first year of this project we set-up and completed a basic experiment involving the sensitivity of the visual system to the modulation of speed of gratings moving in one direction across the visual field. The gratings were of different spatial frequencies, had different average speeds, and the speeds were modulated at different temporal frequencies. This was done in two stages using the method of adjustment. We also implemented a very sophisticated computer program allowing us to use —

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BLOCK # 20 - ABSTRACT

a two-interval forced-choice paradigm in the context of a modified staircase method for accurately measuring thresholds for change of speed and how they are affected by the foregoing parameters, and others as well.

One of the more interesting of our findings was the fact that for all modulation frequencies, sensitivity to acceleration was uniform across all spatial frequencies at low average speeds. As average speed increased, there was an increasing monotonic increase in sensitivity for spatial frequency. Acceleration is proportional to modulation frequency as well as to the amplitude of the modulation of speed.

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sensitivity

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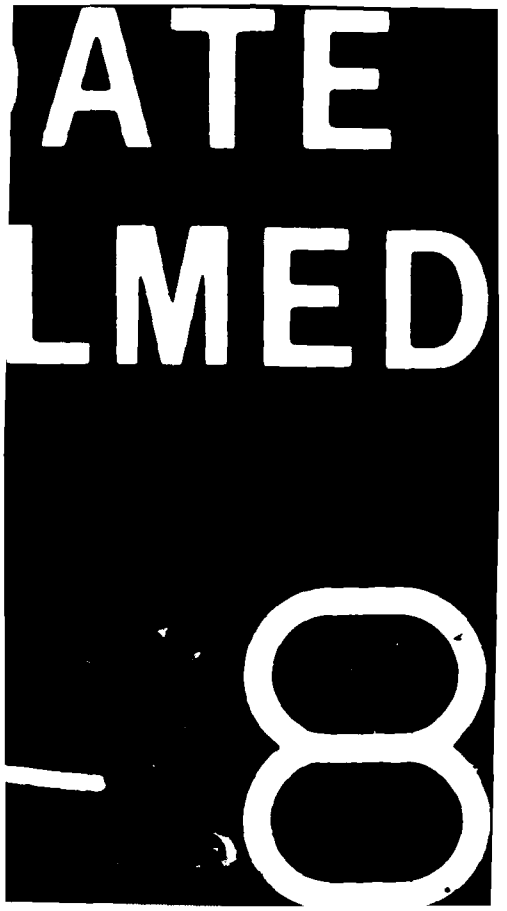
Lloyd Kaufman
Principal Investigator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